

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6 (cancelled)

Claim 7. (currently amended) A method of forming a relational database from an Extensible Markup Language (XML) document formed of a plurality of nodes, the method comprising:

assigning an identifier to every node of the XML document;

assigning a respective sequence identifier to each node of the XML document; wherein

said respective sequence identifiers identify an order of the nodes in the XML document;

and,

converting each node of the XML document into a respective row of the relational database.

31 Claim 8. (previously presented) The method according to Claim 7 wherein said converting comprises:

processing a prolog of the XML document if one is present;

subsequent to processing the prolog, processing a body of the XML document; and,

subsequent to processing the body, processing an epilog of the XML document if one is present.

Claim 9. (previously presented) The method according to Claim 8 wherein:

processing the prolog includes:

retrieving a node from the prolog;

determining a type for the node;

subsequent to a determination that the node type is a processing instruction:

determining a target for the node;

determining an instruction for the node; and,

creating a row of the relational database that includes the identifier, the sequence identifier for the node, an XML document name, the target, the node type, and the instruction; and,

subsequent to a determination that the node type is a comment:

determining the comment; and,

creating a row of the relational database that includes the identifier, the sequence identifier for the node, an XML document name, the comment, and the node type.

Claim 10. (previously presented) The method according to Claim 9 further including incrementing the sequence identifier subsequent to creating the row of the relational database and repeating.

Claim 11. (previously presented) The method according to Claim 8 wherein:

processing the epilog includes:

retrieving a node from the epilog;

determining a type for the node;

subsequent to a determination that the node type is a processing instruction:

determining a target for the node;

determining an instruction for the node; and,

creating a row of the relational database that includes the identifier, the sequence identifier for the node, an XML document name, the target, the node type, and the instruction; and,

subsequent to a determination that the node type is a comment:

determining the comment; and,

creating a row of the relational database that includes the identifier, the sequence

identifier for the node, an XML document name, the comment, and the node type.

Claim 12. (previously presented) The method according to Claim 11 further including incrementing the sequence identifier subsequent to creating the row of the relational database.

Claim 13. (previously presented) The method according to Claim 8 wherein: processing the body includes:

retrieving an XML element;

determining if the element is empty;

setting an empty element variable to a value based upon the determination; and,

creating a row of the relational database that includes the identifier, the sequence identifier for the node, and attributes of the element.

Claim 14. (previously presented) The method according to Claim 13 wherein the attributes of the element include:

an element name, an attribute type, and an attribute value.

Claim 15. (previously presented) The method according to Claim 13 wherein the row further includes the value of the empty element variable, an ancestor and a parent.

Claim 16. (previously presented) The method according to Claim 13 further comprising:

retrieving another element;

determining a type for the another element;

subsequent to a determination that the element type is a processing instruction:

determining a target for the element;

determining an instruction for the element; and,

creating a row of the relational database that includes the identifier, the sequence

identifier for the node, an element name, the target, the element type, and the instruction;

subsequent to a determination that the element type is a comment:

determining text of the comment; and,

creating a row of the relational database that includes the identifier, the sequence

identifier for the node, an element name, the comment, and the element type; and,

subsequent to a determination that the element type is a pcdata text:

determining how many times this element type has been encountered;

determining text of the pcdata text; and,

creating a row of the relational database that includes the identifier, the sequence

identifier for the node, an element name, the element type, an indication of the number of times this element type has been encountered, and the text; and,

subsequent to a determination that the element type is a cdata text:

determining how many times this element type has been encountered;

determining text of the cdata text; and,

creating a row of the relational database that includes the identifier, the sequence

identifier for the node, an element name, the element type, an indication of the number of times this element type has been encountered, and the text.

Claim 17. (previously presented) A method of forming a relational database from an Extensible Markup Language (XML) document formed of a plurality of nodes, the method comprising:

assigning an identifier to the XML document; and,

creating a row of the relational database that includes the identifier, and a content of one of the plurality of nodes.

Claim 18. (previously presented) A relational database comprising:

a database that includes a row containing, content from a node of an Extensible Markup Language (XML) document;

wherein the row includes an XML document identifier.

Claim 19 (previously presented) The relational database according to Claim 18

wherein said content includes:

a sequence identifier for the node, an XML document name, a processing instruction, a target of the processing instruction, and a node type.

Claim 20 (previously presented) The relational database according to Claim 18

wherein said content includes:

a sequence identifier for the node, an XML document name, a comment, and a node type.

Claim 21 (previously presented) The relational database according to Claim 18

wherein said content includes:

a sequence identifier for the node, and XML element attributes.

Claim 22 (previously presented) The relational database according to Claim 21

wherein said element attributes include:

an element name, an attribute type, and an attribute value.

Claim 23 (previously presented) The relational database according to Claim 18

wherein said content includes:

a sequence identifier for the node, an element name, an element type, an indication of the number of times this element type has been encountered, and a text of the element.

Claim 24 (previously presented) The relational database according to Claim 23

wherein said element type is pcddata.

Claim 25 (previously presented) The relational database according to Claim 23

wherein said element type is cdata.
